

Transfer of Ignition Energy From the Discharge From Circuit-Opening to the Gaseous Mixture

77336
SOV/57-30-1-15/18

photoplates with an isoortho sensitivity of 32 units. Intensity of lines was measured on the MF-2 photometer. The ignition probability was determined as the ratio number of explosions to the number of discharges produced in a mixture of 8.5% methane in air at atmospheric pressure. Results are in Table 1. The discharge temperature remains constant for widely different values of the ignition probability and, therefore, has no effect on the character of the ignition process.

II. Investigation of the Relation Between the Electrical Abrasion of Contacts and the Ignition Probability. The author found no connection between the ignition probability and the maximum radiation intensity of the discharge, its length, or its average light energy. He thought it most probable that the ignition occurs due to jets of molten metal flying from the contacts during the discharge. Maskow (Revue de l'Industrie Minerale, Nr 614, 1185, 1954) observed earlier such jets while Silver and Paterson (see references) were able to ignite gaseous mixture by bringing into it

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Table 1. (a) Type of discharge; (b) potential, γ ;
(c) current, a ; (d) ignition probability of the
methane-air mixture; (e) absolute temperature, $^{\circ}$ K;
(f) computed from Eq. (1); (g) computed from Eq.
(2) (average); (h) discharge due to contact opening;
(i) same; (j) arc discharge.

(a)	(b)	(c)	(d)	(e)	
				(f)	(g)
(h)	20	2	10^{-8}	7715	6170
(i)	20	4	$5 \cdot 10^{-5}$	7930	6175
	20	5	10^{-3}	7890	6010
(j)	220	4	1	5900	5020

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very hot quartz balls 1 to 2 mm in diameter. The author used a mixture of ether and air at its most inflammable 5% concentration. He first established the functional dependence of the ignition probability on the circuit-breaker current. Results are on Fig. 2. The justification for plotting lines of identical slope through single experimental points can be found in the paper by Kravchenko and Fetisov (Elektrichestvo, Nr 12, 48, 1956). Next the author found the relation between the circuit-breaker current and the contact abrasion (see Fig. 3). This completed the experimental proof. Table 3 shows that to achieve the same ignition probability of $P = 10^{-2}$ using different materials one has to produce approximately equal abrasion of these materials. The larger discrepancy in the case of MS-1 may be explained by errors in weighing. Discussion of Results Obtained. The droplets of molten metal in the jets are the cause of the gas ignition. The higher the discharge current the higher the number of molten particles per

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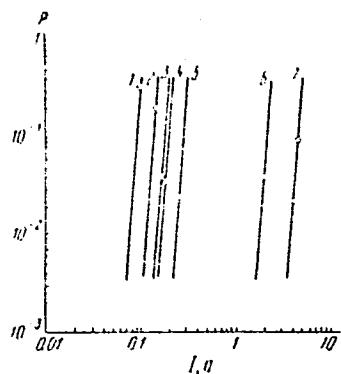


Fig. 2. Ignition probability versus the current of the circuit-breaker for contacts from various materials:
(1) lead; (2) iron; (3) silver; (4) brass; (5)
copper; (6) NS-40; (7) MS-1.

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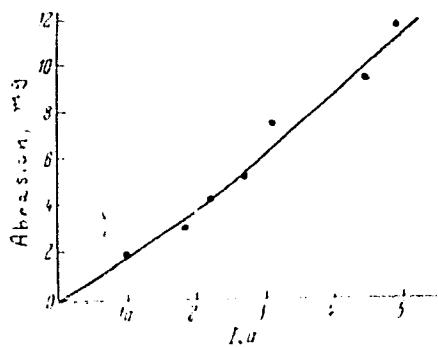


Fig. 3. The amount of electrical abrasion from lead contacts (in milligrams per 1,000 openings) versus the circuit-breaker current (in amperes).

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Table 3. (a) Contact material; (b) current, a; (c) electrical abrasion, gm; (d) lead; (e) iron; (f) silver; (g) brass; (h) copper; (i) NS-40; (j) MS-1.

(a)	(b)	(c)
(d)	$7.5 \cdot 10^{-2}$	$15.0 \cdot 10^{-5}$
(e)	$1.2 \cdot 10^{-1}$	$4.0 \cdot 10^{-5}$
(f)	$1.45 \cdot 10^{-1}$	$1.16 \cdot 10^{-5}$
(g)	$1.6 \cdot 10^{-1}$	$2.7 \cdot 10^{-5}$
(h)	$2.3 \cdot 10^{-1}$	$2.9 \cdot 10^{-5}$
(i)	1.8	$7.2 \cdot 10^{-5}$
(j)	3.7	$24.4 \cdot 10^{-5}$

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unit time flying into the surrounding gas and producing the necessary number of active centers to start the chain reaction. Due to the existence of a definite induction time depending on the temperature and size of the body, not every particle can act as an ignition center. It can also happen that an ignition center starts an explosion chain too near to the discharge so that the chain breaks off prematurely. Finally, it is difficult to talk about any appreciable ignition probability in presence of a single active center. The bigger the number of such centers, i.e., the higher the current, the larger the ignition probability. There are 3 figures; 3 tables; and 12 references, 8 Soviet, 1 French, and 3 U.K. The U.K. references are: S. Paterson, Phil. Mag. 30, 7, 1940; S. Paterson, Phil. Mag., 28, 7, 1939; R. S. Silver, Phil. Mag., 23, 7, 1937.

ASSOCIATION: All-Union Scientific-Research Coal Institute (Vsesoyuznyy nauchno-iasledovatel'skiy ugol'nyy institut)

SUBMITTED: January 10, 1959 Card 9/9

POPOV, N. A.

137-58-5-8790

Translation from: Referativnyy zhurnal Metallurgiya, 1958, Nr 5, p 8 (USSR)

AUTHOR: Popov, N. A.

TITLE: Roasting of Zinc Concentrates at the UKSTsK (Obzhig tsinko-vykh kontsentratov na UKSTsK)

PERIODICAL: Tr. soveshchaniya po metallurgii tsinka, 1954, Moscow, Metallurgizdat, 1956, pp 49-59

ABSTRACT: Roasting of concentrates at the Ust'-Kamenogorsk Lead-zinc Kombinat is carried out in furnaces equipped with 7, 10, and 11 hearths. The standard seven-hearth furnaces were somewhat modified in the course of operations: individually powered belt conveyors were installed, the drying hearth was hermetically sealed and equipped with two additional rakes (making a total of four), a hot-air supply was provided for the third and seventh hearths, the lower portions of the hearths (fourth to seventh) were covered with heat-insulating material, etc. After modification these furnaces gave trouble-free operation with steady production; they are considerable easier to service than the ten- and eleven-hearth furnaces. The latter have essential drawbacks; raking assemblies break down frequently and, owing

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Roasting of Zinc Concentrates at the UKSTsK

to insufficient clearance between the hearths, are difficult to clean or to replace. The masonry of the crowns does not have sufficient strength. In order to intensify the roasting process, the vacuum in the furnaces was increased (from +0.4 mm H₂O on the first hearth to +0.0 mm H₂O) together with the raking speed (one revolution every 70 sec instead of every 200 sec). The temperature of the hearths was raised from 560° to 680°C. In operations which employed smaller amounts of excess air after a sulfuric-acid installation was put into operation (no less than 5.4 percent SO₂), the amount of sulfide S contained in the cinder increased from 0.3 percent to 0.7 percent; the solubility of Zn dropped from 92.8 percent to 90 percent, and the amount of sand in the leaching processes increased to 35 percent.

1. Zinc ores--Processing 2. Furnaces--Operation

A. P.

Card 2/2

Popov N. A.

SHISHKIN, Nikolay Fedorovich, kand.tekhn.nauk; OLENKSEVICH, Valeriy Pavlovich;
DANILIN, Petr Yakovlevich; MIKHEYEV, Yuriy Aleksandrovich; SYCHEV,
Leonid Ivanovich; Prinimali uchastiye: SHALAGIMOVA, T.S., inzh.;
SMORODINSKIY, Ya.M., kand.tekhn.nauk; KALINICHENKO, M.F., inzh.;
CHASHKIN, Ye.V., inzh.; ASTAF'YEV, V.D., inzh.; PROKOF'YEV, V.I.,
vedushchiy konstruktor; ROGOV, V.A., starskiy master; MOSKALENKO, V.M.,
laborant; GERASIMOV, N.P., laborant; ~~POPOV, N.A.~~ kand.fiziko-matem.
nauk; KALINICHENKO, M.F., inzh.. LYUBIMOV, N.G., etv.red.; ALADOVA,
Ye.I., tekhn.red.; PROZOROVSKAYA, V.L., tekhn.red..

[Protection of the electric equipment and cable networks in mines]
Zashchita shakhtnykh elektrostanovok i kabel'nykh setei. Pod red.
N.F.Shishkina. Moskva, Ugletekhnizdat, 1959. 242 p. (MIRA 12:3)
(Electricity in mining) (Electric cables)

Popov, N. N.

aa

11

The influence of ultrahigh-frequency fields on the external secretion of the pancreas. P. A. Gabrury and N. A. Popov. *Bull. biol. med. expd. U. R. S. S.*, 3, 511-12 (1938); *Chem. Zentral.*, 1939, II, 3835.—In dogs in which pancreatic secretion could be collected and measured, this secretion was examined after the feeding of a standard meal both with and without exposure to ultrashort waves (2.5 cm.). Exposure was for 15 min.; the temp. of the skin rose a degree during this time. This treatment produced a vigorous increase in pancreatic secretion, which sometimes occurred at once, sometimes after a latent period of 1-2 days. M. G. Moore

Metallurgical Literature Classification

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013423

POPOV, N.A., Prof.

PL 23/49T75

USSR/Medicine - Literature, Medical Sep/Oct 48
Medicine - Nerves, Peripheral

"Review of Professor L. Ya. Pine's Book, 'Diagnosis
of Wounds of Peripheral Nerves (Difficulties and
Oversights);'" Prof N. A. Popov, 1 3/4 pp

"Nevropatol i Psichiat" Vol XVII, No 5

Reviews favorably. Published by Medgiz, 1946,
141 pp, 5,000 copies.

23/49T75

1. POPOV, Prof. N. A.

2. USSR (600)

4. Brain - Tumors

7. Clinical aspects of tumors of the occipital lobe; dislocation syndromes. Vop.
neirokhir. 16 no. 6, 1952.

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

POPOV, N.A., professor (Leningrad).

Clinical aspects of neurinomas of the auditory nerve. Vop. neirokhir. 17
no. 4:3-9 Jl-Ag '53. (MLR 6:8)

1. Klinika nervnykh bolezney Instituta dlya usovershenstvovaniya vrachey
im. S.M.Kirova. (Nerves--Tumors)

POPOV, N.A.

POPOV, N.A.

Symptomatology of tumors of the brain stem. Zhur. nevr. i psikh.
54 no.6:562-566 Je '54. (MLRA 7:7)

1. Klinika nervnykh bolezney Leningradskogo instituta usovershen-
stvovaniya vrachey imeni S.M.Kirova.
(BRAIN, neoplasms,
*manifest.)

POPOV, N.A.

Data on traumatic epilepsy; temporal and frontal localization.
Zhur. nevr. i psikh. 54 no.7:559-563 J1 '54. (MLRA 7:7)

1. Klinika epilepsii Instituta imeni V.M.Bekhtereva i Klinika
nervnykh bolezney Leningradskogo ordena Lenina instituta
usovremenstvovaniya vrachey imeni S.M.Kirova.

(EPILEPSY,
*traum., frontal & temporal)

POPOV, N.A.

Clinical aspects of tumors of the occipital lobe; gnostic disorders.
Zhur. nevr. i psich. 54 no.12:1019-1023 D '54. (MLRA 8:2)

1. Klinika nervnykh bolezney Leningradskogo instituta usovershen-
stvovaniya vrachey imeni S.M.Kirova.
(OCCIPITAL LOBE, neoplasms,
symptoms)

POPOVA, N.A., professor (Moskva)

Methods and mechanisms of the restoration of motor functions in central
paralysis of vascular origin. Klin. med. 33 no.9:38-45 S '55.
(MLRA 9:2)

(PARALYSIS,
central, caused by vasc. disord., exercise ther.)

(CENTRAL NERVOUS SYSTEM, blood supply,
vasc. disord. causing central paralysis, exercise ther.)

(EXERCISE THERAPY, in various diseases,
paralysis, central, caused by vasc. disord)

POPOV, Nikolay Aleksandrovich, professor; ASTAKHOV, S.N., redaktor; RULEVA,
M.S., tekhnicheskiy redaktor.

[Tumors of the hypophysis and the hypophyseal region; clinical
aspects and diagnostics] Opukholi gipofiza i gipofizarnoi oblasti;
klinika i diagnostika. Leningrad. Gos. izd-vo med.lit-ry, Lenin-
gradskoe otd-nie, 1956. 212 p. (MIRA 9:6)
(PITUITARY BODY--TUMORS)

POPOV, N.A.

"Diseases of the optic tract" by E.Zh.Tron. Reviewed by N.A.Popov.
Zhur,nevr. i psikh. 57 no.1:145-148 '57.
(OPTIC NERVE--DISEASES AND DEFECTS)
(TRON, E.ZH.)
(MLRA 10:3)

Popov, N.A.

CHALISOVA, K.U.; POPOV, N.A.

Clinical aspects and therapy of chronic forms of spinal tuberculosis
[with summary in French]. Zhur.nevr. i psikh. 57 no.7:825-829 '57.

(MLRA 10:9)

1. Nervnoye otdeleniye (nauchnyy rukovoditel' - prof. N.A.Popov)
Leningradskoy oblastnoy klinicheskoy bol'nitsy
(TUBERCULOSIS, MENINGEAL,
spinal, clin. aspects ther. (Rus))

POPOV, N.A.; CHALISOVA, K.N.

Clinical aspects and neurological diagnosis of primary tumors of
the lateral ventricles. Vop. psikh i nevr. no.3:136-147 '58.

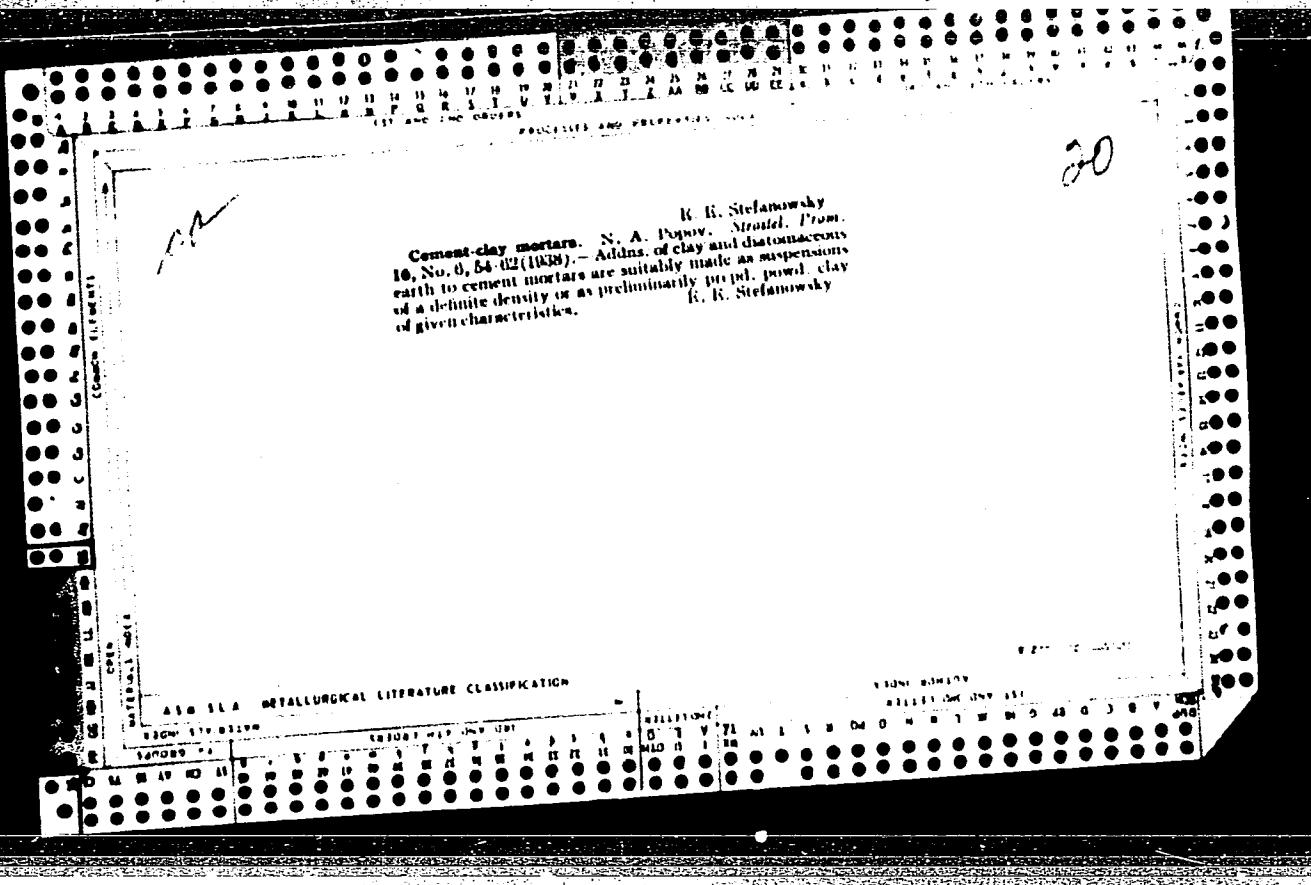
(MIRA 12:3)

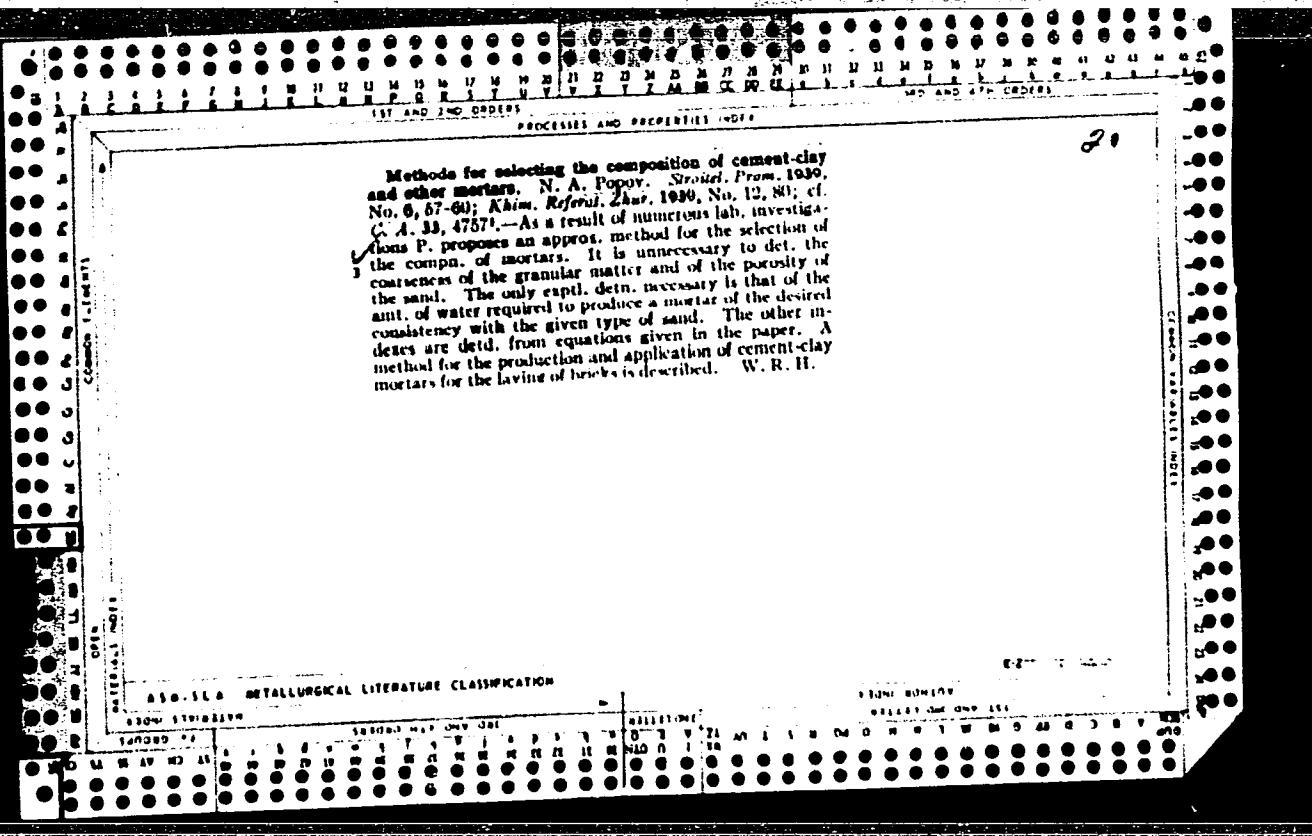
1. Iz nervnogo otdeleniya Leningradskoy oblastnoy klinicheskoy
bol'niitsa.
(BRAIN--TUMORS)

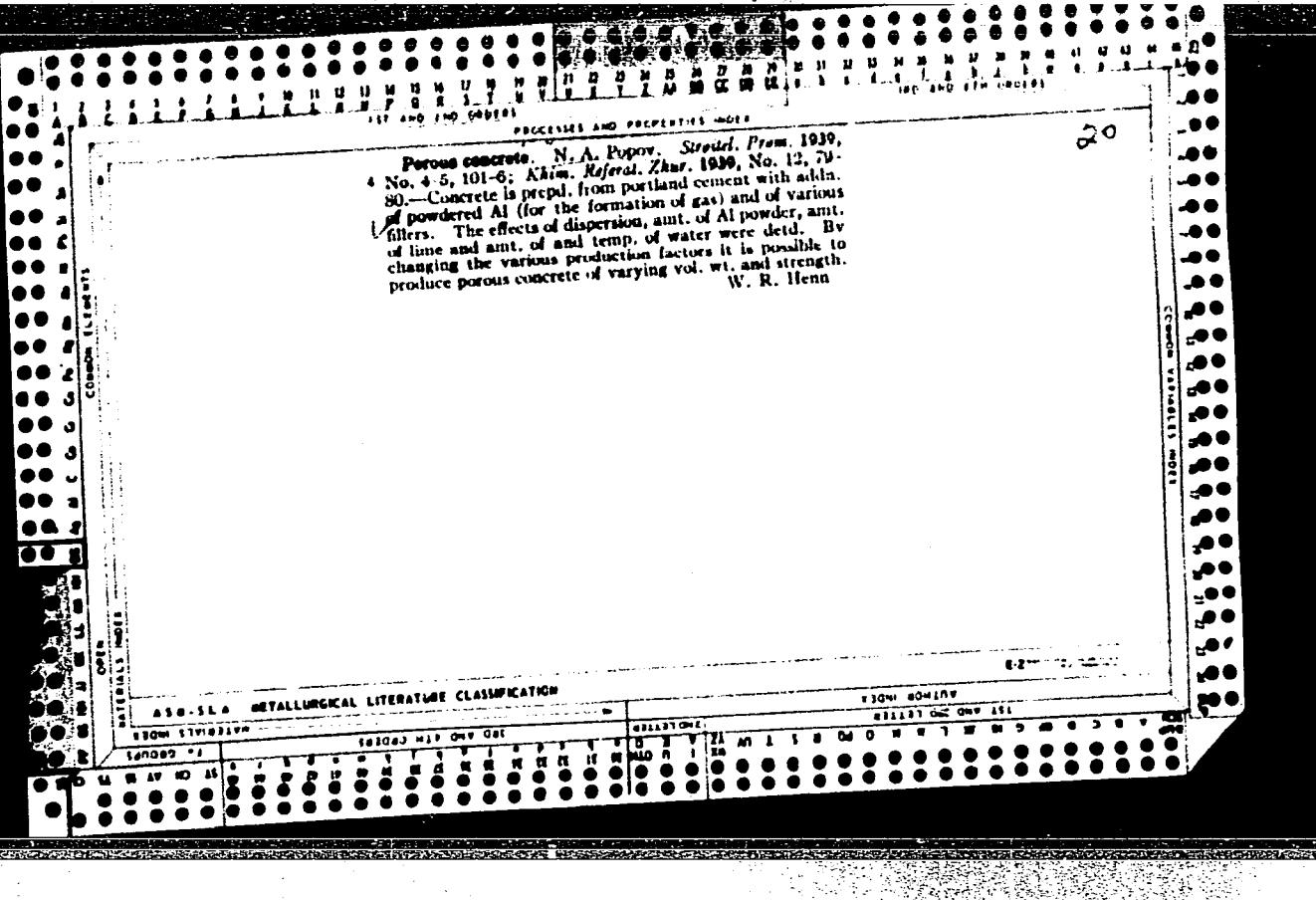
POPOV, N.A., prof.; RODIONOV, K.K.

Case of cerebral abscesses. Vop.neirokhir. 22 no.6:43-44
N-D '58. (MIRA 12:2)

1. Nervnoye i neyrokhirurgicheskoye otdeleniya Leningradskoy
oblastnoy klinicheskoy bol'nitsy.
(BRAIN, abscess,
case reports (Rus))







POPOV, N.A.; KHOMPRIK, G. .

Sintering materials by means of top gas suction. Scott. U.S.P. 3,635,354
no.2,349,354. At: 164.

I. Gosudarstvennyy nauchno-tekhnicheskiy institut sinteza poluzh
materialov, Tbilisi. submitted April 14, 1964.

POPOV, N. A.

POPOV, N.A.; BOGIN, N.M.

[The production and use of earth blocks] Proizvodstvo i pri-
menenie gruntoblokov. Moskva, Akademija arkhitektury SSSR, 1945
113 p.
(Building materials)

PA 28T34

POPOV, N. A.

USSR/Engineering

Ceramics

Brick

Jul 1947

"Prospects of Development of Some Construction Materials for Capital Construction," Prof N. A. Popov,
Dr of Mechanical Sciences, 7 pp

"Stroitel'naya Promyshlennost'" No 7

Discussion of new developments in ceramic building materials. Lengthy tables of characteristics of various types of hollow blocks and bricks, and approximate preparation processes from various clays.

BS

28T34

FOFOV, N.A.

35332. Nekotorye Voprosy Povysheniya Stovkost i Shalkobetonnykh
kamney, Trudy IV Bsesoyuz. Konf-Tsii Po Betonu i Zhelezobeton. Konstrutsiyam.
Ch. I. M.-L., 1949, S. 179-88

SO: Letpis 'Zhurnal'nykh Statey, Vol. 34, Maskva, 1949

POPOV, N.A.

Slag

Increasing the sturdiness of slag concrete blocks., Stroi. prom., 30, no. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 1952 ~~1951~~, Uncl.

ELINSON, M.P., kandidat tekhnicheskikh nauk; POPOV, N.A., redaktor.

[Fuel ashes used as filler for light concrete] Toplivnye shlaki kak zapolnitel
dlia legkikh betonov. Pod red.N.A.Popova. Moskva, Gos.izd-vo lit-ry po
stroitel'stvu i arkhitekture, 1953. 46 p. (MLRA 6:12)
(Concrete) (Ash (Technology))

Popov, N. A.

Building mortars for walls of high buildings. N. A.
Popov. Issledovaniye Konstruktsii Vysochnykh Zdanii (Moscow).
Gosudarst. Izdatel. Literatury po Stroitel. i Arkhitekti) 1953, 181-8; Referat. Zhur., Khim. 1955, No. 7941. — Investigation and experience show that naphtha soap is one of the best plasticizing hydrophobic addns. The presence of naphtha soap in cement or lime mortar prevents the aggregation of the finest grains of bonding material into flocks which increases its mobility, reduces the amt. of bonding material required, and prevents sepn. in the mortar. The interaction of water-sol. naphtha soap with cement or lime produces water-insol. Ca soaps which coat with a fine film the surfaces of pores and capillaries of the solid substances, thereby reducing their wettability which results in reduced capillary suction, increases frost resistance, prevents efflorescence, increases resistance to shear deformation, and increases the adhesion of mortar by 40-50%. Addn. of naphtha soap reduces cement requirement by 5-10% and lime requirement 4-5 times. M. Husek

MIRONOV, S.A., professor, doktor tekhnicheskikh nauk, STOL'NIKOV, V.V.,
doktor tekhnicheskikh nauk [reviewers]; SKRAMTAYEV, B.G., POPOV, N.A.,
GERLIVANOV, N.A., MUDROV, G.G. [authors].

"Building materials." B.G.Skramtaev, N.A.Popov, N.A.Gerlivanov,
G.G.Mudrov. Reviewed by S.A.Mironov, V.V.Stolnikov. Stroi.prom. 31
no.11:47-48 N '53. (MLRA 6:12)
(Building materials) (Skramtaev,B.G.) (Popov,N.A.)

POPOV, N.A.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 25 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Suggested by</u>
Skramtayev, B.G. Popov, N.A.	"Construction Materials" (textbook, 5th edition)	Moscow Construction Engineering Institute imeni V.V. Kuybyshev
Gerlivanov, N.A.		
Mudrov, G.G.		

SO: W-30604, 7 July 1954

PoPOV, N. A.
USSR/Engineering - Construction

FD-319

Card 1/1 : Pub. 41 - 11/17

Author : Popov, N. A., and Goryaynov, K. E.

Title : Some problems of scientific organizations in assistance to agri-cultural construction in the field of construction materials

Periodical : Izv. AN SSSR, Otd. tekhn. nauk, 2, 86-97, Feb 1954

Abstract : Describes problems to be solved in order to increase quality and reduce costs of materials used in construction of buildings in rural areas. Offers possible solutions and suggests institutions which should do the research. 21 references.

Institution : --

Submitted : By P. P. Budnikov, Corr Memb, Acad of Sci, USSR, December 22, 1953

POPOV, N. A.

Konstruktsii vysotnykh zdaniy (Designs of Tall Buildings), a symposium, edited by Professor V. M. Keldysh, Active Member, Academy of Architecture, USSR, Z. A. Antonov, Corresponding Member, Academy of Architecture, USSR, and N. A. Popov, Press for Literature on Building and Architecture, 16 sheets.

The symposium contains articles devoted to theoretical and experimental investigations on the design of tall buildings, giving conclusions and recommendations, and including "Instructions for the Planning of External Walls of Tall Buildings", and "Technical Factors in the Preparation and Application of Mortar for Laying and Facing External Walls of Tall Buildings".

The symposium is intended for engineer-designers and builders, as well as for scientific workers and post-graduate students.

SO: U-6472, 18 Nov 1954

AVAKOV, Artemiy Ivanevich, kandidat tekhnicheskikh nauk; HERDICHESKII, G.I., kandidat tekhnicheskikh nauk, redaktor; SKRAMTAIEV, B.G., doktor, tekhnicheskikh nauk, professor, redakteur; ~~POPOV, N.A.~~, doktor tekhnicheskikh nauk, professor, redaktor; ROSTOVTSEVA, M.P., redaktor; VOLKOV, V.S., tekhnicheskiy redaktor.

[Determining the composition of concrete mixtures and mortars; reference manual] Naznachenie sostavov i rastverov; spravechnoe posobie. Pod obshchei red. B.G.Skramtaeva i N.A.Popova. Moskva, Gos. izd-vo lit-ry po stroy. i arkhitekture, 1955. 45 p.
(Concrete) (Mortar) (MLRA 9:6)

TITKOV, Georgiy Georgiyevich, kandidat tekhnicheskikh nauk; POPOV, N.A.,
redaktor; SHAKHOVA, L.I., redakter; KOLEVNIKOVA, A.F., tekhnicheskiy redakter.

[Concise directions for drawing up and calculation in lumber
milling] Kratke rukovodstvo po sestavleniu i raschetu postavev.
Moskva, Goslesbumizdat, 1955. 49 p. (MIRA 9:5)
(Sawmills)

Popov, N.A.

AID P - 3941

Subject : USSR/Hydr. Eng.

Card 1/2 Pub. 35 - 5/19

Authors : Popov, N. A., Prof. Active Member, Academy of
Architecture, USSR, Chuyko, A. V., Kand. Tech. Sci.

Title : Influence of hydration on basic properties of con-
crete facing slabs.

Periodical : Gidr. stroi., 7, 16-19, 1955

Abstract : Treatment of cement for impermeability and frost-
resistance is discussed and certain defects pointed
out. Cracks appearing in concrete facing slabs are
reportedly due to quick temperature changes during
the hydration process. The authors report on tests
conducted in the Moscow Civil Engineering Institute
on stresses in various types of cement with various
admixtures. Further research on vibration treatment
reportedly might exclude the necessity for using the
hydration process. Two tables, one diagram.

SOV/137-57-11-21991

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 190 (USSR)

AUTHORS: Popov, N. A., Bolkvadze, L. S.

TITLE: On the Problem of Corrosion of Steel Reinforcement in Lime-sand
Autoclave Materials (K voprosu o korrozii stal'noy armatury v
izvestkovo-peschanykh avtoklavnykh materialakh)

PERIODICAL: V sb.: Krupnorazmern. silikatn. i penosilikatn. izdeliya. Moscow.
Gos. izd-vo lit. po str-vu i arkhitekt., 1956, pp 17-26

ABSTRACT: Data are cited on laboratory investigations of initial corrosion
(C) after autoclave treatment, of the conditions under which C of
metals develops, and of the effect of the type of binder (cement
lime, or their mixture), the density of the concrete, and the
storage conditions on the process of C. For the evaluation of the
intensity of corrosive attack an 11-mark scale was developed in
which the highest mark (10) corresponded to the condition of a
surface without traces of corrosion and the lowest ones (1 and 0)
to the conditions of the complete C of steel with the intrusion of
the C products into the concrete. It is established that the basic
condition contributing to the maximum preservation of the

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On the Problem of Corrosion of Steel Reinforcement (cont.) SOV/137-57-11-21991

reinforcement in autoclave-hardened lime-sand concrete is their proper density which is achieved by hard compaction, such as by centrifuging, with the simultaneous use of milled quicklime. In poured lime-sand autoclave concretes that are either immersed in water or are subjected to varying conditions, the C of the reinforcement develops quite rapidly owing to the insufficient density of these materials even when quicklime is used in their manufacture. This points to the undesirability of the employment of reinforced articles of poured concrete under the conditions of variable humidity of the medium without a special protective shell. In vibration-packed sand concretes the C of the reinforcement under certain working conditions would probably be related to the degree of density of the article achieved. The use of milled quicklime in this case somewhat decreases the danger of C of the reinforcement, which would allow decreasing the consumption of cement.

M K

Card 2/2

PoPoV. N.A.

SHESTOPEROV, S.V., doktor tekhnicheskikh nauk; BOGIN, N.M., kandidat tekhnicheskikh nauk; IVANOV, G.S., inzhener; LUKICHEV, N.A., inzhener; DAVYDOV, L.S., inzhener; GROMOV, V.S., inzhener; POPOV, N.A., inzhener; ZHURLEV, G.M., master.

Vibrators for making wire reinforced ties on stands. Transp.stroi. 6
no.3:12-14 Mr '56. (MLRA 9:7)
(Railroads--Ties, Concrete)

POPOV, N.A.; KHIGEROVICH, M.I.

Naphtha soap as a plasticizer for mortars. Rats. i izobr. predl. v
stroj. no.137:13-15 '56. (MIRA 9:9)
(Mortar) (Soap)

POPOV, N.A., redaktor; BAGAK, B.A., redaktor izdatel'stva; PERSON, M.N., tekhnicheskiy redaktor
tekhnicheskiy redaktor: MAGISHKINA, T.M., tekhnicheskiy redaktor

[Lightweight concrete made of porous aggregates] Legkie betony na
poristykh zapolniteliakh; sbornik statei. Pod red. N.A. Popova.
Moskva, Gos.izd-vo lit-ry po stroit. i arkhit., 1957. 204 p.

(MLRA 10:10)

1. Akademiya stroitel'stva i arkhitektury SSSR. 2. Deyatvitel'nyy
chlen Akademii stroitel'stva i arkhitektury SSSR (for Popov)
(Lightweight concrete)

Popov, N. A.

Influence of hydrophobic additives on properties of light
concretes. N. A. Popov and A. Z. Tatiswill (Inst. Build-
ing Ind., Acad. Sci. Georgian S.S.R., Tiflis). *Savish-
chiniyu Akad. Nauk Gruzii. S.S.R.* 18, No. 1, 69-85 (1957).
—Usually concretes with porous fillers have low strength and
uneven surface. Hydrophobic additives (e.g., naphtha-
soap, rosin acids, etc.) in amounts 0.06-0.5% act as plas-
ticizers and raise the final strength of concrete, at the same
time increasing their frost resistance. The action of the
additives consists in producing uniformly distributed pores
resulting in over-all better characteristics of the product, as
compared with coarse-porosity concretes. Whereas samples
with hydrophobic additives withstand 85-100 freezing-thaw-
ing cycles, analogous samples without the additives col-
lapsed after 15-35 cycles. E. Ryzhikovitch

3

124-58-6-7240

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 128 (USSR)

AUTHORS: Popov, N.A., Spivak, N.Ya.

TITLE: An Evaluation of the Strength, Specific Gravity, and Homogeneity
of Light-weight Concretes Based on Porous Fillers (Otsenka
prochnosti, ob'yemnogo vesa i odnorodnosti legkikh betonov na
poristykh zapolnitelyakh)

PERIODICAL: V sb.: Legkiye betony na poristykh zapolnitelyakh. Moscow,
Gos. izd-vo lit. po str-vu i arkhitekt., 1957, pp 190-205

ABSTRACT: Bibliographic entry

- 1. Concrete--Mechanical properties 2. Concrete--Physical properties
- 3. Concrete--Materials

Card 1/1

KUDRYASHEV, I.T., kand.tekhn.nauk. Prinimali uchastiye: POPOV, N.A., prof., doktor tekhn.nauk; YEROFEYeva, Ye.A., kand.tekhn.nauk; GORYAINOV, K.E., doktor tekhn.nauk; VOLCHEK, I.Z., kand.tekhn.nauk; KUPRIYANOV, V.P., kand.tekhn.nauk; YAKUB, I.A., kand.tekhn.nauk; KEVESH, P.D., kand.tekhn.nauk; ERSHLER, E.Ya., inzh.. KHAVIN, B.N., red.izd-va; STEPANOVA, E.S., tekhn.red.; SOINTSEVA, L.M., tekhn.red.

[Technical instructions for the manufacture of prefabricated elements from cellular autoclave concrete] Tekhnicheskie usloviia na izgotovlenie sbornykh izdelii iz avtoklavnykh iacheistykh betonov. Moskva, Gos.izd-vo lit-ry po stroit., arkhit., i stroit.materialam, 1959. 79 p.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Kudryashev). 3. Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V.Kuybysheva (for Popov, Yerofeyev). 4. Nauchno-issledovatel'skiy institut po stroitel'stvu Minstroya RSFSR (for Goryainov, Volchek, Kupriyanov, Yakub). 5. Nauchno-issledovatel'skiy institut zhelezobetona Glavmoszhelezobetona (for Kevesh, Ershler). 6. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Popov). (Precast concrete)

POPOV, N.A.; ORENTLIKHER, L.P.

Effect of the degree of dispersion in cements on structural
and mechanical properties of cement suspensions. Nauch.dokl.
vys.shkoly; stroi. no.2:195-204 '59. (MIRA 13:4)

1. Rekomendovana kafedroy stroitel'nykh materialov Moskovskogo
inzhenerno-stroitel'nogo instituta imeni V.V.Kuybysheva.
(Cement)

POPOV, N.A.,prof.; ORENTLIKHER, L.P.,inzh.

Strength of lightweight concretes made with double ground cements.
Bet. i zhelt'-bet. no.11:510-513 N '60. (MIRA 13:11)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR
(for Popov).
(Lightweight concrete)

VILENKINA, Nina Mikhaylovna; POPOV, N.A., prof., doktor tekhn.nauk,
nauchnyy red.; KUZNETSOVA, M.N., red.izd-va; GOL'BERG, T.M.,
tekhn.red.

[Soil-cement blocks] TSementno-gruntovye kamni. Moskva, Gos.
izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1961.
(MIRA 14:6)
86 p.

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury
(for Popov).
(Soil cement)

POPOV, N.A., zasluzhenny deyatel' nauki i tekhniki RSFSR; SPIVAK, N.Ya.,
kand.tekhn.nauk

Ways to improve the quality of keramzit and keramzit concrete
articles. Stroi. met. 7 no.9:9-13 S '61. (MIRA 14:11)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR.
(for Popov).
(Lightweight concrete)

POPOV, Nikolay Anatol'yevich, zasl. deyatel' nauki i tekhniki, prof.;
ELINZON, Mark Petrovich, kand. tekhn. nauk; SHTEYN, Yakov
Shmelevich, kand. tekhn. nauk; GLEZAROVA, I.L., red. izd-va;
MIKHEYEVA, A.A., tekhn. red.

[Choosing the composition of lightweight concrete made with
artificial porous aggregates] Podbor sostava legkikh betonov
na iskusstvennykh poristykh zapolniteliakh. Pod red. N.A. Popova.
Moskva, Gosstroizdat, 1962. 81 p. (MIRA 15:5)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury
SSSR (for Popov).
(Lightweight concrete)

POPOV, N.A., prof.; SHTEYN, Ya.Sh., kand.tekhn.nauk; TACHKOVA, N.A., inzh.

Heat conductivity of concrete made with slag pumice. Stroi.mat.
8 no.3:13-15 Mr '62. (MIRA 15:8)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR
(for Popov). (Lightweight concrete--Testing)

POPOV, N.A.; ORENTIKHER, L.P. inzh.

Crack resistance of lightweight concrete. Bet. i zhel.-bet. 8 no. 5:
224-226 My '62.
(MIRA 15:6)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSR.
(Lightweight concrete--Testing)

ISIDOROV, V.V.; POPOV, N.A., doktor tekhn. nauk, zasluzhennyy deyatel' nauki i tekhniki; ELINZON, M.P., kand. tekhn. nauk.

Problems of producing artificial aggregates for concrete. Stroj. mat. 9 no.6il-3 Je '63. (MIRA 17:8)

1. Zamestitel' direktora po nauchnoy rabote Vsesoyuznogo nauchno-issledovatel'skogo instituta novykh stroitel'nykh materialov (for Isidorov). 2. Deystvitel'nyy chlen Amademi stroitel'stva i arkhitektury SSSR (for Popov). 3. Rukovoditel' laboratorii legkikh zapolniteley Vsesoyuznogo nauchno-issledovatel'skogo instituta novykh stroitel'nykh materialov (for Elinzon).

GLIK, Lev Bentsionovich, dots.; EFROS, Grigoriy Matveyevich, kand.
tekhn. nauk; POPOV, Nikolay Anatol'yevich, zasl. deyatel'
nauki i tekhniki, doktor tekhn. nauk, prof.; TYLKIN, M.N.,
red.; PULIN, L.I., tekhn. red.

[Foamed slag; its production and use] Shlakovaia pemza; pro-
izvodstvo i primenie. Pod-red. N.A. Popova. Tula, Tul'skoe
(MIRA 16:8)
knizhnoe izd-vo, 1962. 262 p.

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury
SSSR (for Popov).
(Slag)

POPOV, N.A.

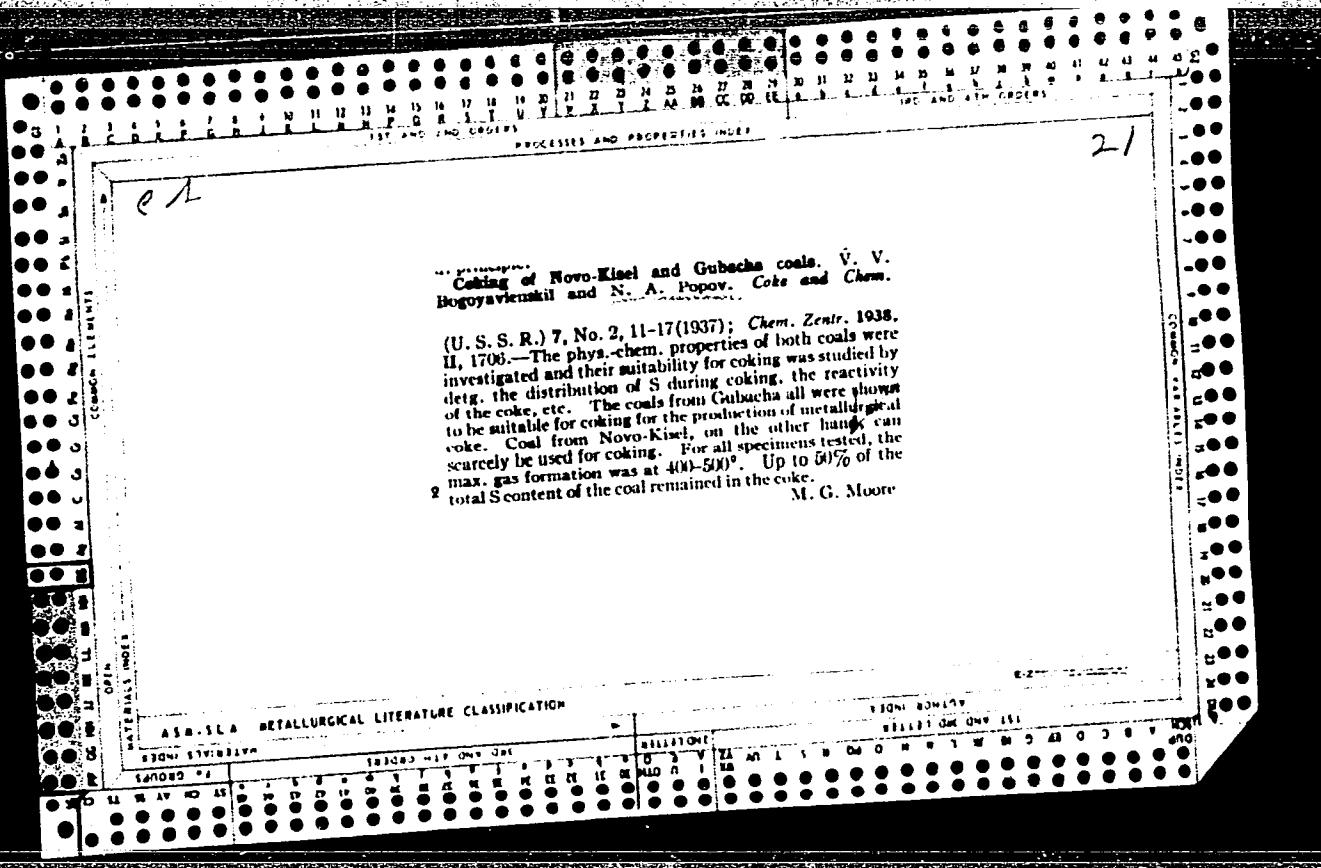
Clinical aspects of occipital lobe tumors. Zhur. nevr. i psikh. 61
no.4:481-487 '61. (MIRA 14:7)

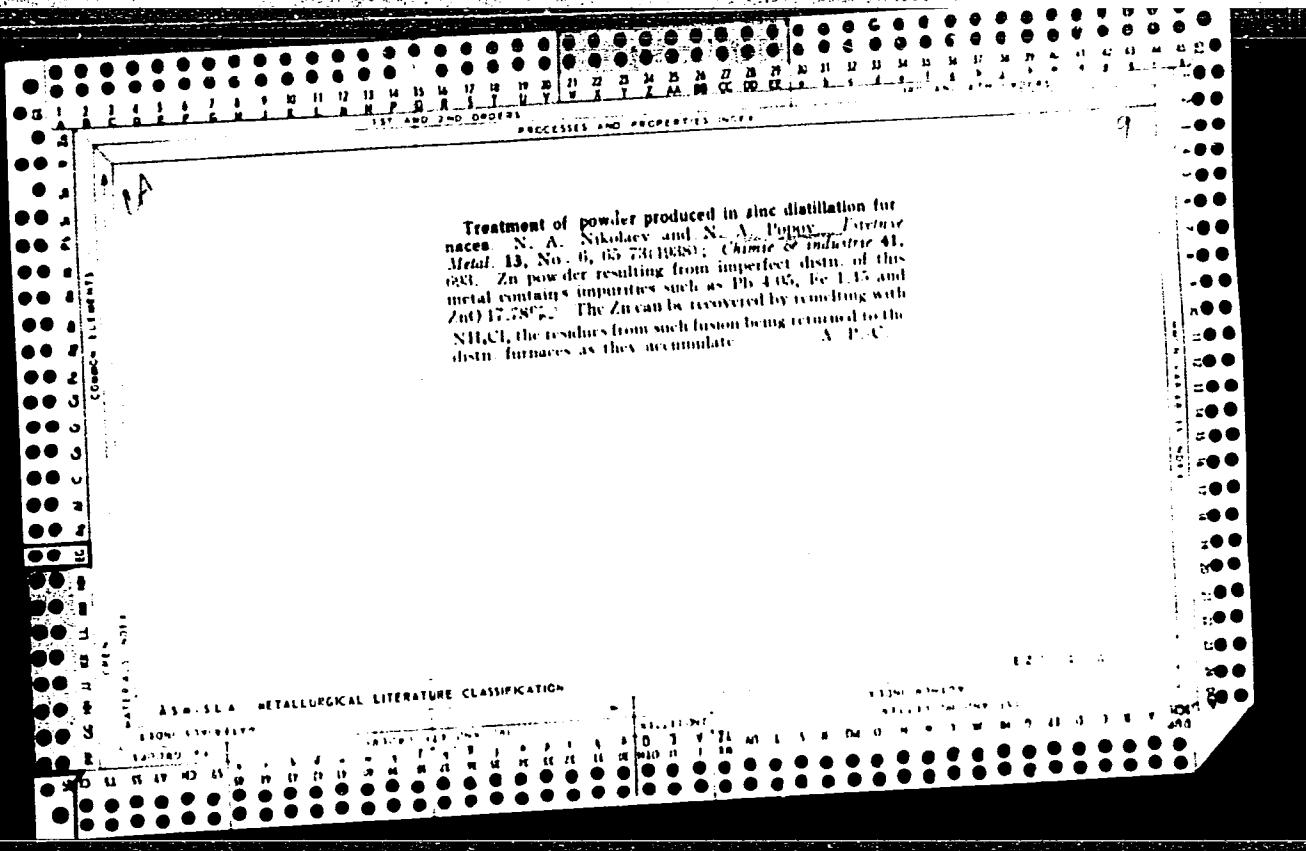
1. Leningradskaya oblastnaya klinicheskaya bol'nitsa.
(BRAIN—TUMORS)

POPOV, N.A.

Some remarks on the article "Cholesteatomas of the cauda equina of the spinal cord following tuberculous meningitis in children treated with endolumbar streptomycin." Zhur. nevr. i psikh. 61 no.4:637-638 '61. (MIRA 14:7)

(MENINGES—TUBERCULOSIS) (STREPTOMYCIN)
(SPINAL CORD—TUMORS)





4658. USE OF BIZYAEV'S TRACK-SHIFTING MACHINE IN DUMPING OPERATIONS.
Popov, N.A. (Gornyi Zhurnal (Min. J.), 1949, (8), 19-21). (L).

POPOV, N.A. --

"Chemical and Technological Characteristics of Coals From the Kuznetsk
Stone-Coal Region and Their Use in the Manufacture of Coke." Cand Tech Sci,
Ural Polytechnic Inst, Sverdlovsk, 1953. (RZhKhim, No 20, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

POPOV, N.A., prof. (Leningrad)

Chorioepithelioma of the brain. Vop.neirokhir. 24 no.5:29-33
S-O '60. (MIRA 13:11)

1. Oblastnaya klinicheskaya bol'nitsa.
(BRAIN--TUMORS)

POPOV, N.A.

Continuous two-stage purification of zinc sulfate solutions from
impurities. TSvet. met. 34 no.2:81-82 F '61. (MIRA 14:6)
(Zinc--Electrometallurgy)

POPOV, N.A., kand.fiz.-matem.nauk

Motor-driven commutating device in an electric power supply
system with advance disconnection. Prom. energ. 15 no.7:17-20
Jl '60. (MIRA 15:1)

(Commutation (Electricity))
(Electric switchgear)

5/056/62/043/002/002/000
B:04/3106

24.6300

AUTHORS: Strutinskiy, V. M., Lyashchenko, N. Ya., Popov, N. A.
TITLE: Symmetrical shapes of equilibrium in the nuclear model with
a sharp surface (drop model)
PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 2(8), 1962, 584-594

TEXT: The symmetrical equilibrium shapes of a nucleus are investigated by
solving Euler's variational equation

$$y \frac{d^2y}{dz^2} - 1 - \left(\frac{dy}{dz}\right)^2 + y \left[\lambda_1 + \lambda_2 |z| + \frac{5}{2} x \Phi_s(z, y) \right] \left[1 + \left(\frac{dy}{dz}\right)^2 \right]^{\eta_1} = 0, \quad (2)$$

by means of an iteration method. $y = y(z)$ describes the surface of the
nucleus which is symmetric about the z axis.

$$x = (Z^3/A)/(Z^3/A)_{crit} = \frac{3}{16} (Z^2 r^2 / 4\pi OR^3),$$

is the usual parameter of the "liquid drop model of nucleus", O is the

Card 1/2

LEYZEROVICH, Grigoriy Yakovlevich; BABINA, Irina Vladimirovna;
SEREBRENNIKOVA, Esfir' Yakovlevna; CHUMAK, Z.V., inzh.,
retsenzent; POPOV, N.A., inzh., retsenzent; TSETLIN, V.M.,
red.; MISHARINA, K.D., red.izd-va; ISLENT'YEVA, P.G.,
tekhn.red.

[Roasting zinc concentrates in a fluidized bed] Obzhig
tsinkovykh kontsentratov v kipiaschchem sloe. Pod red.
Leizerovicha. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
chernoi i tsvetnoi metallurgii, 1959. 222 p. (MIRA 12:8)
(Zinc--Metallurgy)

POPOV, N.A., inszh.

Graphic calculation of discharges and water levels in tailraces under
24-hour discharge control at hydroelectric power stations. Rech.
transp. 18 no.2:33-36 F '59. (MIRA 12:4)
(Hydraulics)
(Hydroelectric power stations)

ADAMSKIY, V.B. (Moskva); POPOV, N.A. (Moskva)

Motion of a gas caused by an exponentially changing piston
pressure. Prikl. mat. i mekh. 23 no.3:564-573 My-Je '59.
(MIRA 12:5)
(Fluid mechanics)

Popov N.A.
AUTHORS: Panchenko, S.I. and Popov, N.A.

68-58-2-1/21

TITLE: The Importance of the South Yakutsk Coal Basin for the Development of the Iron and Steel Industry in Regions East of Lake Baykal (Znacheniye Yuzhno-Yakutskogo uglo-nego basseyna v razvitiu chernoy metallurgii v rayonakh vostochnye ozera Baykal)

PERIODICAL: Koks i Khimiya, 1958, Nr 2, pp 3-5 (USSR)

ABSTRACT: Large iron ore deposits situated to the east of the Lake Baykal (Berezovskoye - on the lower part of the River Argun', Aldanskoye - in Southern Yakutiya, Garskoye - north of the town Svobodnyy) could form a supply base for raw material for the iron and steel industry. There are also large coal deposits mainly of brown and gas coals unsuitable for the production of metallurgical coke. The exception is South Yakutsk coal basin which contains fat, coking and lean coking coals. General characteristics of coal seams of this basin are given. The total coal resources of this basin are at present evaluated as 40 milliards tons. Pilot plant coking of the Yakutsk coals in blends with gas coals of the Bureinsk and Bureinsk basins was carried out (no details given) with satisfactory results. Thus, the South Yakutsk basin can provide coals suitable for coking either alone or in blends with a considerable proportion

Card1/2

The Importance of the South Yakutsk Coal Basin for the Development of
the Iron and Steel Industry in Regions East of Lake Baykal 68-58-2-1/21

of gas coals. The importance of this basin for the development of the iron and steel industry in the East is stressed and the inclusion of the development of this basin into the general plan of development of national economy in 1959-1965 is proposed. As the first step, the construction of a railway joining this basin with the Siberian main railway line is advocated.

ASSOCIATION: VUKhIN

AVAILABLE: Library of Congress

Card 2/2

1. Coal - USSR
2. Iron industry - USSR
3. Steel industry - USSR

POPOV, N. A., Cand of Bio Sci -- (diss) "Oak Forests of the
Yuzhnogo Primorye and the Effect of Fires on Them," Vladivostok,
1959, 21 pp (Siberian Department, Far East Affiliate imeni V. L.
Komarov, Acad Sci USSR) (KL 4-60, 117)

POPOV, N.A.

Effect of forest fires on the stand of Mongolian oak in the southern
Maritime Territory. Soob.DVFAN SSSR no.11:35-44 '59.

(MIR 13:11)

1. Dal'nevostochnyy filial imeni V.L.Komarova Sibirsogo otdeleniya
AN SSSR.

(Maritime Territory--Oak) (Forest fires)

POPOV, N. A., and RYKHOVSKI^Y, V. I.

"On Impoverishment of Metal Ceramics by Highly Volatile Components at Heating in Vacuum."

Report submitted for the Conference on Heat and Mass Transfer,
Minsk, BSSR, June 1961.

ROZENBERG, V.A.; POPOV, N.A.

Growth and development of young Mongolian oak undergrowth. Soob. DVTAK
SSSR no. 12:111-118 '60. (MIRA 13:11)

1. Dal'nevostochnyy filial imeni V.L.Komarova Sibirskskogo otdeleniya
AN SSSR.
(Soviet Far East--Oak)

POPOV, N.A.

Transfer of energy of combustion from a disconnection discharge
to the gas mixture. Zhur.tekh.fiz. 30 no.1:105-109 Ja
'60. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy ugol'nyy institut.
(Electric discharges)
(Gas and oil engines--Ignition)

POPOV, Nikolay Aleksandrovich; ABRAKOV, L.V., red.; RULEVA, M.S.,
tekhn. red.; CHUNAYEVA, Z.V., tekhn. red.

[Intracranial tumors; difficulties and mistakes in diagnosis
(clinical essays)] Vnutricherepnye opukholi; trudnosti i oshib-
ki diagnostiki (klinicheskie ocherki). Leningrad, Medgiz, 1961.
202 p. (MIRA 15:7)

(BRAIN--TUMORS)

ROZENBERG, Vsevolod Aleksandrovich; POPOV, Nikolay Aleksandrovich;
GAVRENKO, I.T., red.; GUMBINA, S.V., tekhn.red.

[Reforestation of unforested areas of the Maritime Territory]
Vosstanovlenie lesov v bezlesnykh raionakh Primor'ia. Vladivostok, Primorskoe knizhnoe izd-vo, 1960. 13 p.

(MIRA 13:10)

(Maritime Territory--Reforestation)

POPOV, N.A.

Tumor of the right half of the brain with a syndrome of pernicious anemia. Vop. psikh i nevr. no.3:91-97 '58. (MIRA 12:3)

1. Iz kliniki nervnykh bolezney Gosudarstvennogo ordena Lenina Instituta usovershenstvovaniya a vrachey im. S.M. Kirova.
(BRAIN--TUMORS) (ANEMIA)

POPOV, N.A., prof.; ELINZON, M.P., kand.tekhn.nauk

Raising the quality and the effectiveness of lightweight
concretes. Bet.i zhel.-bet. 8 no.9:390-393 S '62. (MIRA 15:12)
(Lightweight concrete)

POPOV, N.A., prof.; ORENTLIKHER, L.P., kand.tekhn.nauky; DERYUGIN,
V.M., inzh.; SOKOL'SKIY, I.F., red. izd-va; TARKHOVA, K.Ye.,
tekhn. red.

[Quick-hardening lightweight concretes of wet ground cement]
Bystrotverdeiushchie legkie betony na tsemente mokrogo domola.
Pod red. N.A. Popova. Moskva, Gosstroizdat, 1963. 147 p.
(MIRA 16:6)

1. Deystvital'nyy chlen Akademii stroitel'stva i arkhitektury
SSSR (for Popov).
(Cement) (Concrete)

POPOV, N.A., kand.fiziko-matematicheskikh nauk; KOZLOV, V.B., inzh.

A switch consisting of several series-connected arc-quenching chambers. Vest. elektroprom. 34 no.2:28-31 F '63. (MIRA 16:2)
(Electric switchgear)

Popov, N.A.

Popov, N. A. "Results of the Gravimetric Expedition in the Region of Poltava-Slobodskaya." Razvedka Nedr, Moscow, c. 10/11, 1/39, p. 102.

POPOV, N. A. Cand. Physicomath. Sci.

Dissertation: "The Zeiss Zenith-Telescope in Poltova, and Observation of Bright
Zenith Stars." Moscow Order of Lenin State U. imeni M. V. Lomonosov, 12 Jun.
1947.

SO: Vechernaya Moskova, Jun. 1947, (Project #17836)

POPOV, N.A.

Latitude variations shown by observations of two bright zenith stars.
Trudy Polt.grav.obser. 2:21-41 '48. (MLRA 8:1)
(Latitude variation)

POPOV, N.A.

Gravimetric relationship of Poltava to Lvov. Trudy Polt._{grav.}
obser. 2:84-105 '48. (MLRA 8:1)
(Gravity)

POPOV, N.A.

The large Poltava zenith telescope and observations made with it
from 1939 through 1940. Trudy Polt. grav. obser. 3:13-74 '50.
(Poltava--Telescope, Zenith) (MLRA 8:1)

POPOV, N.A.

Short-period nutation members in Poltava observations of bright zenith stars. Trudy Polt.grav.obser. 4:103-137 '51. (MLRA 6:6)
(Stars--Observations) (Nutation)

POPOV, N.A.

Observations of a Persei and η Ursae Majoris in 1947.6-1949.3. Trudy Polt.
grav. obser. 4:200-242 '51. (MLRA 6:6)
(Stars--Observations)

POPOV, N.A.; YEVETUSHENKO, Ye.I.

Deriving latitude variations from observations on the universal instrument.
Trudy Polt.grav.obser. 4:250-293 '51. (MLRA 6:6)
(Latitude variation) (Stars--Observations)

1. POPOV, N. A.
2. USSR (600)
4. Latitude Variation-Poltava
7. Latitude variation of Poltava from observations of bright zenith stars in 1951.
Astron.tsir. no. 126, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

POPOV, N.A.

Variations in the latitude of Poltova from the observations of bright zenith stars in 1952. Astron.tsir. no.135:5 P '53. (MLRA 6:6)

I. Poltavskaya observatoriya.

(Poltava--Latitude variation)

POPOV, N.A.

Poltava latitude variations from observations of bright zenith stars during the period 1953.0 -1954.2. *Astron.tzir.* no.149:6
My '54. (MLRA 7:7)

1. Poltavskaya observatoriya AN USSR.
(Poltava--Latitude variation) (Latitude variation--Poltava)

POPOV, N. A.
POLOFF, N. A.

AID - P-236

Subject : USSR/Astronomy
Card : 1/2
Author : Popoff, N. A.
Title : On the Effect of Temperature on the Focusing of the Telescope and on the Value of one Ocular Micrometer Screw Turn
Periodical : Astron. zhur., v. 31, 2, 178-190, Mr - Ap 1954
Abstract : Latitude observations serve as a basis in determining the complex movement of the pole of the earth, and also the aberration, nutation, abnormal refraction, etc. This demands an exceptional accuracy in establishing the numerical value of one ocular micrometer screw turn which is the main scale of measurements in Talcott's method. The precise determination of the temperature coefficient of this value is important. This was done by focusing the telescope on a double star and determining the focal distance under temperatures from -17° to $+29^{\circ}\text{C}$. Interesting is the suggestion of D. D. Maksutov of constructing temperature compensated astronomical instruments.

POPOV, N.A., and FEDOROV, Ye. P.

"Problem of Method of Observing the Bending of Light Rays in the Gravitational Field of the Sun," Astronom. tsirkulyar, July 26, No 151, 1954, pp 21-22

For the observation of Einstein's effect during the eclipse of 30 June 1954 the Poltava observatory prepared special equipment similar to that used first by A. A. Mikhaylov in 1936, but differing from it by the addition of a mirror instead of a parallel plate for photography of the field of control. Clouds interfered with the eclipse, but the obtained photograph of the field of control indicated that the suggested method passed the test. (RZhAstr, No 4, 1955)

Poltava Observatory

SO: Sum. No. 568, 6 Jul 55

PHASE I BOOK EXPLOITATION

SOV/3323
SOV/55-M-8

Poltava. Gravimetriceskaya observatoriya

Trudy, tom 8 (Transactions of the Poltava Gravimetric Observatory, Vol. 8)
Kiyev, Izd-vo AN Ukrainskoy SSR, 1959. 190 p. Errata slip inserted.
2,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk Ukrainskoy SSR.

Ed. of Publishing House: N. M. Labinova; Tech. Ed.: T. Ya. Mazurik; Resp. Ed.:
Z. N. Aksent'yeva, Corresponding Member, UkrSSR Academy of Sciences.

PURPOSE: These articles are intended for scientific workers, teachers and aspirants working in the fields of astronomy, geodesy and geophysics.

COVERAGE: This book contains the results of the analysis of a six-year cycle of observations of two bright zenith stars over Poltava (α Perseus and η Ursae Major), data on the movement of the pole from 1946 to 1956, calculated latitudes based on observations at 12 observatories, and also the results of an investigation of the changes in the mean latitudes of MSSh (International Latitude Service) stations.

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Transactions of the Poltava Gravimetric (Cont.)

SOV/3323

TABLE OF CONTENTS:

Popov, N.A. Analysis of the Results of the Six-Year Series of Twenty-Four-Hour Observations of Zenith Stars at Poltava

This article discusses the systematic observation at Poltava in 1939 of the following bright zenith stars:

Name of Star	m	α 1955.0	δ 1955.0
α Perseus	1.9	$3^h 21^m 05^s.89$	$+ 49^{\circ}42'10".01$
η Ursa Major	1.9	$13^h 45^m 46.13$	$+ 49^{\circ}32'14.32$

Results of twenty-four-hour observations of latitude covering a six-year period are given. The observations were largely devoted to nonpolar latitude variations. For daytime observations stars not weaker than the second magnitude were chosen. The author points out the difficulty of choosing such bright stars from Talcott star pairs due to the necessity of limiting observations to zenith stars, that is, to stars which are in a narrow zone of declinations which passes through the zenith of the observatory. In 1955, in addition to the research program mentioned, a study was
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Transactions of the Poltava Gravimetric (Cont.)

SOV/3525

made of the micrometer to determine more accurately rate and periodic errors. The Ridberg method was used in making observations to correct for periodic errors of the micrometer. The importance of determining the temperature coefficient, and the effect of ambient temperature on observations is discussed. The whole cycle of observations comprised 966 observations of α Perseus, and 974 observations of η Ursa Major. The average latitude for the six-year period was $49^{\circ} 36' 13".04$ from η Ursa Major observations, and $49^{\circ} 36' 13".08$ from α Perseus observations. The author states that in determining the wave pattern of daily variations (of observation readings) the usual method was somewhat changed. The author states in conclusion that the results of the determination of the "z-member" do not indicate the existence of a daily pattern of the type $\Delta\phi = \text{acos} (t_0 + \gamma)$ in latitude observations.

Panchenko, N.I. Movement of the Earth's Pole From 1946 to 1954. 90
The author reviews the first latitude observations made in the last decade of the 19th century, calling attention particularly to the setting up of the International Latitude Service in 1899 to coordinate the work of seven special latitude measurement stations. He discusses in

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AUTHOR:

Popov, N.A.

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TITLE:

The Semi-Annual and Semi-Monthly Terms of Nutation in the Variations of Poltava Latitude

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ABSTRACT: The author applies periodogram Fuhrich analysis for the reduction of data of a six-year series of twenty-four hour latitude observations of the Poltava zenith stars, and shows that the $\Delta \cos(t + \frac{1}{2})$ diurnal term, detected previously in the observations of these bright zenith stars, does not exist in reality in these observations. However a wave of the type $\Delta \cos(2\Omega - \omega - \frac{1}{2})$ [Ref 2] has been revealed with certainty and can be explained by an insufficiently correct amplitude of the semi-annual term of nutation.

A new value of the amplitude of the semi-monthly wave [Ref 5] is derived. It is in good agreement with results obtained from the analysis of other series of latitude observations.

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